

## REMARKS

The Official Action of April 21, 2004 has been carefully considered and reconsideration of the application as amended is respectfully requested.

Claim 53 has been amended to remove the basis for the rejection to this claim under 35 USC 112, first paragraph appearing at page 3 of the Official Action. The claim now recites the presence of both gelatin and a polysaccharide in the claimed bead. Since gelatin can serve both as a protein in the recited polymer matrix (specification at page 1, penultimate paragraph) and as a surface active molecule in the recited oil-in-water emulsion (specification at page 2, first paragraph), the remainder of claim 53 has been amended so as not to recite the presence of a protein and surface active molecule as separate components. Indeed, the description in the specification on page 3, first full paragraph, and in Examples 1-16 in the specification makes clear that a separate protein and surface active molecule is not required. Nevertheless, the specification also makes clear that more than one surface active molecule may be used in the claimed bead (see specification at page 2, line 23: "*at least one* surface active molecule"). Claim 58 has been amended to reflect this. Claims that were redundant in view of the amendment to claim 53 have been canceled.

Claim 109 has been amended in a manner similar to claim 53 and also to incorporate therein the recitations formerly in claims 110 and 111, and these latter claims have been canceled.

Claims 112 and 113 have been rejected under 35 USC 112, first paragraph, because the Examiner does not consider there to be support in the specification for the recitations that the volatile component is released from the bead in atmospheric air over a period comprising a plurality of hours or days. Applicants respectfully call the Examiner's attention, for example, to (a) the paragraph bridging pages 2 and 3, which states that the claimed beads provide "sustained release of the volatile materials when exposed to the atmosphere"; (b) the third full paragraph on page 7 of the specification, wherein it states that "sustained release", as applied to the release of the volatile material from the alginate beads (see last sentence of this paragraph), refers to a time period that can be measured in "hours" (plural, i.e. a plurality of hours) or "days" (plural, i.e. a plurality of days); and (c) Tables 1 and 3 of the Examples which show that the release rates of the exemplified samples were released over a period of days. It is respectfully submitted that at least these portions of the specification provide written descriptive support under 35 USC 112, first paragraph support for the claimed subject matter.

The claims stand rejected under 35 USC 103(a) as allegedly being unpatentable over Commick and Nitto Electric Inc Co. in view of Meinke et al. Applicants respectfully traverse these rejections.

In maintaining these rejections, the Examiner refused to consider the functional recitations relating to the atmospheric release characteristics of the claimed beads because the functional recitations were allegedly not tied to a component or

ingredient of the claimed bead. Applicants respectfully call the Examiner's attention to the present claim language which ties the functional recitations to the formation of the claimed bead from the recited components: "the water insoluble bead being formed from the volatile hydrophobic component, gelatin, polysaccharide and water by a process such that the bead is storable in water without release of the volatile component and such that the volatile component is released from said water insoluble bead in air" (see specification at paragraph bridging pages 2 and 3). As shown by the Declaration of Shlomo Magdassi of record, a bead formed from the recited components comprises a gelatin layer surrounding the emulsion droplets, which affects the release characteristics of the bead.

In contrast, the cited art does not show or suggest a water insoluble bead wherein the polymer matrix comprises gelatin and a saccharide such that the prior art bead differs from the claimed bead for this reason alone. Moreover, the primary reference, Connick, teaches beads which are released in water (see Connick at column 2, lines 5-11) and thus teaches away from the formation of a bead from *any* components that render the bead insoluble in water. Accordingly, this reference cannot be combined with any of the other references to set forth even a *prima facie* case of alleged obviousness for the invention as claimed.

Even assuming for the sake of argument that the cited art were properly combinable and showed all of the claimed recitations (including the recitation that the bead formed from the recited components is insoluble in water) so as to set forth a

*prima facie* case of alleged obviousness, it is respectfully submitted that the evidence of record would be sufficient to rebut such alleged *prima facie* case. In particular, the Declaration of Shlomo Magdassi establishes that gelatin can significantly inhibit the release of an active compound in the claimed beads as compared with a different surfactant. The declaration thus establishes the criticality of a variable which the prior art did not even recognize as a result effective variable.

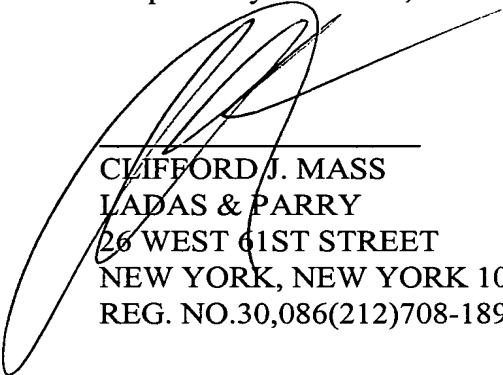
The Examiner has dismissed the declaration because (a) the evidence of record is allegedly not commensurate in scope with the claims, and (b) the declaration "merely" presents the release rate of **dodecyl acetate**. With respect to (a), Applicants respectfully note that all claims of record are now limited to beads that are prepared with gelatin, a polysaccharide and the volatile hydrophobic component such that they have the recited release characteristics, and it is respectfully submitted that the evidence is now commensurate in scope with the claims.

With respect to (b), it is well known that sex pheromones of moths are mainly composed of long chain, saturated or unsaturated, alcohols, acetates or aldehydes. Dodecyl acetate ( $C_{12}OAc_1$  or  $C_{12}Ac$  as abbreviated in the book discussed next) is an important component of many pheromones, as presented in the book of Arn, Toth and Priesner: List of Sex Pheromones of Lepidoptera and Related Attractions (relevant pages of which are transmitted herewith). The attached examples are just a few of the many pheromones, which contain dodecyl acetate. Therefore, the studies with dodecyl acetate are both to study a model compound as well as a real pheromone

component. Thus the declaration respectfully cannot be dismissed for the reasons advanced by the Examiner.

In view of the above, it is respectfully submitted that all objections and rejections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,



---

CLIFFORD J. MASS  
LADAS & PARRY  
26 WEST 61ST STREET  
NEW YORK, NEW YORK 10023  
REG. NO.30,086(212)708-1890